DOCUMENT RESUME

ED 298 581 CS 506 353

AUTHOR Preiss, Raymond W.; Kerssen, Jeffrey D.
TITLE Receiver Apprehension in Educational Settings: A Typology of Outcomes and Comprehensive Bibliography.
PUB DATE 88
NOTE 30p.
PUB TYPE Information Analyses (070) -- Reference Materials - Bibliographies (131)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Classification; Cognitive Processes; *Communication Apprehension; Communication Problems; Educational Research; Elementary Secondary Education; Higher Education; *Receptive Language
IDENTIFIERS *Receiver Apprehension

ABSTRACT

Focusing on educational settings, this paper examines receiver apprehension (anxiety associated with the decoding, interpreting, and/or adjusting psychologically to messages sent by others). The first section, in a review of the literature, discusses the theoretical basis for receiver apprehension. A summary of educational consequences is contained in the second section, indicating that while educational consequences have not been specified, receiver apprehension has been associated with decrements in measures of academic achievement and with higher levels of test anxiety. The third section presents a typology of potential educational outcomes of receiver apprehension, characterized into major educational domains based upon the conceptual nature of receiver apprehension. Three figures are included. Twenty-nine references and a 31-item comprehensive bibliography of empirical research on receiver apprehension are attached. (SR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED298581

Receiver Apprehension in Educational Settings: A Typology of Outcomes and Comprehensive Bibliography

Raymond W. Preiss

and

Jeffrey D. Kerssen

Department of Communication & Theatre Arts
University of Puget Sound
Tacoma, WA 98416

Running head: RECEIVER APPREHENSION

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Raymond Preiss

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Paper submitted to the ERIC Clearinghouse on Reading and Communication Skills

CS506353

Receiver Apprehension in Educational Settings: A Typology of Outcomes and Comprehensive Bibliography

Abstract

Receiver apprehension has received considerable attention since Wheeless (1975) conceptualized the variable as anxiety associated with the decoding, interpreting, and/or adjusting psychologically to messages sent by others. While the educational consequences of receiver apprehension have not been specified, the variable has been associated with decrements in measures academic achievement and higher levels of test anxiety. In this paper, a typology of potential educational outcomes of receiver apprehension is specified and a comprehensive bibliography of receiver apprehension research is reported.

Receiver Apprehension in Educational Settings: A Typology of Outcomes and Comprehensive Bibliography

Wheeless (1975) advanced receiver apprehension as a variable relevant to effective information processing in education contexts. Noting evidence for reticence (Phillips, 1968) and communication apprehension (McCroskey, 1970), Wheeless reasoned that an individual's communicative role (source or receiver) should function relatively independently in fear or anxiety arousing contexts. Specifically, he suggested that the fear of sending messages was related to social approval, while the fear of receiving messages was related to processing information. Termed receiver apprehension, the variable was defined as ". . . the fear of misinterpreting, inadequately processing and/or not being able to adjust psychologically to messages sent by others" (Wheeless, 1975, p. 263). Wheeless asserted that the anxiety associated with the receiver role of communication would affect information processing abilities, cognitive adjustments to messages, and educational performance.

Although a substantial body of literature has accumulated of the variable, the educational implications of receiver apprehension is unclear. Explanations for receiver apprehension do not share a common theme or concentrate on a unified set of dependent measures. Instead, the literature has evolved in a

fragmented and disjointed manner. For example, while Wheeless (1975) focused upon the issue of anxiety, Beatty (1981) equated receiver apprehension with cognitive complexity and Preiss (1987) offered a constructivist explanation for the variable. On a pragmatic level, deficiencies in theory construction will affect the advice offered educators for dealing with receiver apprehension in the classroom. For this reason, we divide our discussion into Three sections: (a) the theoretical basis for receiver apprehension, (b) a summary of educational consequences of receiver apprehension, and (c) a typology of potential educational outcomes of receiver apprehension..

Theoretical Basis of Receiver Apprehension

The most comprehensive attempt to explain receiver apprehension was initiated by Wheeless and Scott (1976). They asserted that apprehension occurs as a function of the fear of encountering new information. Wheeless and Scott (1976) made this case when they advanced two distinctions between source- and receiver-based communication anxieties: (1) encoding versus decoding functions, and (2) specific versus general contexts. Receiver apprehension was conceptualized as a more situational-type anxiety associated with message decoding. Like oral communication apprehension, receiver apprehension appeared to be more of a fearful reaction than a generalized, phobic

anxiety (Wheeless, 1975).

Wheeless and Scott (1976) adopted the view that receiver apprehension was associated with general or specific information processing situations. Building on the work of Spielberger (1966), Wheeless and Scott (1976) distinguished between fear and general anxiety on the basis of "state" and "trait" characteristics of the phenomena. State anxiety was related with specific things, events, and situations that could be identified (e.g., water, heights, etc.), while trait anxiety, was related to a generalized activation level of the individual which functions across many situations. Figure 1 illustrates the differences between fear and pathological, generalized anxiety. Wheeless and Scott (1976) noted that two conditions were clearly tied to fear

---

Insert Figure 1 about here

(Condition I) and general anxiety (Condition IV). Further, the factor distinguishing between the two conditions was an understanding of the causes of the arousal: Receiving information. Figure 1 also depicts two conditions labeled apprehension that were not clearly tied to either the fear or general anxiety constructs. Wheeless and Scott (1976) reasoned that "an individual who understands the reasons for his/her

apprehensiveness -- albeit a specific or general situation -- appears to be more fearful than pathologically anxious. Likewise, the person who has a phobic reaction to a specific situation but does not rationally understand the reasons for the reaction, also seems to be more fearful than pathologically anxious" (pp. 2-3). Therefore, the two conditions labeled apprehension (Conditions II and III) seemed related to the concept of fear, rather than generalized anxiety. This reasoning suggested that receiver apprehension could be conceptually summarized as a fearful, but not necessarily understood reaction to information processing in both specific and general situations.

Receiver apprehension studies dealing with listening effectiveness and information processing effectiveness appear to be consistent with the fear/situation explanation. For example, Roberts (1986) found that Receiver Apprehension Test (RAT) scores were related to listening situations. Total listening ability and long-term memory, as measured by employed the Watson-Barker Listening Test (Watson & Barker, 1984), was negatively correlated with RAT scores. However, short-term memory was not associated with receiver apprehension. In the area of short-term memory, Daniels and Whitman (1979) detected a significant effect for receiver apprehension on recall of facts following exposure to an experimental message.

In the area of information processing effectiveness, additional evidence has reinforced the early research on classroom performance (Wheeless & Scott, 1976) and academic achievement (Scott & Wheeless, 1977). For example, there is reason to believe that stress plays a role in the processing of information for apprehensive individuals. Bock and Bock (1984) found that, when under stress, highly apprehensive students rated student speakers leniently. When the stress was removed, low receiver apprehensive raters committed the fewer leniency errors. These findings tend to support the anxiety explanation because situational demands may suppress or exaggerate existing fears of encountering new information. The variability in leniency errors suggests that receiver apprehension may function as a perceptual screen or filter that affects information processing efficiency.

Beatty and his colleagues made the case for information processing differences in studies focusing on the cognitive consequences of receiver apprehension. In the context of listening efficiency, Beatty, Behnke and Henderson (1980) found that respondents scoring high on the RAT instrument tended to respond anxiously in situations where incoming information required complex processing or psychological adjustment (p.135). Low processing efficiency was interpreted to mean that receiver apprehensives have difficulty assimilating new information.

Working from assimilation theory (McReynolds, 1976), Beatty (1981) reasoned that inefficient information processing results in backlogs of unassimilated facts that produces a conditioned anxiety. In other words, receiver apprehension may be produced as secondary anxiety, and the "trait" may emerge as response associated with receiving information. As predicted, Beatty (1981) found a significant correlation between cognitive backlogs and receiver apprehension.

In a related study, Beatty and Payne (1981) explored receiver apprehension and cognitive complexity as an explanation for cognitive backlogs. Because complexity levels set information processing thresholds, cognitively simple receivers should experience a backlog of unprocessed information. The authors found a significant negative correlation between cognitive complexity and receiver apprehension. Employing participants from a different geographic region and education level, Bocchino (1984) replicated the cognitive simplicity/receiver apprehension finding.

There is a body of receiver apprehension research indicating that the variable is a habitual response to information processing situations. Using a measure of physiological arousal (tympanic temperature), Roberts (1984) found a positive correlation between receiver apprehension and arousal while listening to two tape recorded messages. The stronger, stable

correlation associated with the second message suggested that the RAT instrument was measuring habitual, rather than situated, communication apprehension (p. 128). Beatty (1985) made a similar case when he examined the stability of RAT scores after processing complex messages. The "relatively stable" nature of the scores was interpreted as supporting the trait-like characteristics of receiver apprehension. This was consistent with earlier research correlating the RAT with a measure of state anxiety (Beatty, Behnke, & Henderson, 1980).

Because the secondary anxiety approach views receiver apprehension as assuming trait-like characteristics, it is reasonable to expect the RAT to be moderately correlated with other "anxiety-related" personality variables. There is evidence supporting this assumption. Studies have detected a small, but significant correlation between the RAT (Wheeless, 1975) and the Revised Receiver Apprehension Test (RRAT; Wheeless & Scott, 1976) and the communication apprehension (McCroskey, 1970). Similarly, Borzi (1985) found a significant positive correlation between the RAT and general shyness. In a study designed to develop a measure of trait information anxiety, Williams (1976) found a moderate correlation between his instrument and the RRAT.

Educational Implications of Receiver Apprehension

There is strong evidence that receiver apprehension has

educational consequences. Decrements in the information processing efficiency attributed to receiver apprehension have been associated with nearly a full GPA point loss for high apprehensive students when compared to low apprehensive students in university classrooms (Wheeless & Scott, 1976). Further, Bock and Bock (1984) found that receiver apprehensives under stress tended to commit leniency errors; e.g., overestimating the performance of speakers. Finally, McDowell and McDowell (1978) found that receiver apprehension was higher in primary and secondary schools than in university classes.

These results suggest that receiver apprehension must be considered when developing curriculum and targeting educational objectives. However, the curriculum implications of "treating" receiver apprehension are vague. A real danger exists that poor conceptualization of receiver apprehension will lead to simplistic treatment programs for the "problem." For example, Wolvin and Coakley (1985) made the claim that the receiver apprehensive listener "may have to learn how to relax before he or she can listen effectively" (p. 106). This diagnostic advice may be quite inappropriate, as the nature of the "anxiety" associated with receiver apprehension is unclear.

Figure 2 illustrates the potential error of prescribing relaxation as a "cure" for receiver apprehension. This approach assumes that anxiety serves as a barrier that interferes with

listening abilities (Condition III). However, the student who is anxious when listening may have a rational basis for the

---

Insert Figure 2 about here

---

apprehension: poor information processing abilities. This student (Condition IV) may not be helped by relaxation. Further, relaxation training may move this student to Condition II, an irrational state where no concern is exhibited toward unsatisfactory processing abilities. Treatment programs should focus on apprehension and skills. Moving students to Condition I may require systematic desensitization (Goss, Thompson, & Olds, 1978), training in critical thinking or argumentation (Infante & Rancer, 1982), and/or practice in message evaluation (Phillips, 1978).

Clearly, the entire approach to "treatment" for receiver apprehension is poorly reasoned. Receiver apprehension is a complex variable that transcends current programs designed to measure and improve listening skills. Consequently, educational practices must focus upon improving information processing and listening skills at all receiver apprehension levels. For those who experience anxiety, special educational techniques should be developed. These programs must consider the apprehensive

student's breadth of information on a topic area, educational background, and reinforcement history related to listening. Irrational fears (Conditions II and III) may not respond to relaxation techniques alone. Also, the optimal "mix" of treatment strategies will vary based upon the theoretical nature of receiver apprehension. Consequently, researchers must devote increased attention to refining a theory of receiver-based anxiety in the context of educational environments.

Potential Educational Outcomes of Receiver Apprehension

After thirteen years of study, receiver apprehension has not emerged as an issue in the education or communication and instruction literature. While there is evidence that receiver apprehension is associated with decrements in information processing effectiveness, information processing complexity, and listening ability, few investigators have examined the specific behaviors used in educational settings. We identified features of the educational environment related to receiving/processing/adjusting to messages and had no difficulty specifying a list of expected outcomes:

1. Low academic achievement motivation.
2. High test and evaluation anxiety.
3. Lower achievement test and assignments.

4. Poor library research skills.
5. Poor study habits.
6. Preference for structured assignments.
7. Logic flaws in message construction.
8. The tendency to express opinions rather than use evidence.
9. Inappropriate social behavior.
10. Writing deficits.
11. Reading deficits.
12. History of withdrawing from courses.
13. Greater risk of dropping out from school.

If receiver apprehension is an important variable in educational settings, the range of classroom outcomes must be determined and the magnitude of the effects must be specified.

We suspect that the classroom consequences of receiver apprehension are subtle and pervasive. Figure 3 details a typology of educational outcomes based upon our search for related studies and the only review of receiver apprehension literature (Preiss, Wheeless, & Allen, under review). We attempted to characterize educational outcomes into major educational domains based upon the conceptual nature receiver apprehension.

---

insert Figure 3 about here

The typology is not intended to be comprehensive. Rather, the breakdown illustrates the diversity of possible outcomes in educational settings.

We see a pattern in the typology that reflects a general orientation to education; e.g., that information is a "thing" to be learned, that knowledge and truth are synonymous, that theory is unimportant because it is abstract, that all questions have right or wrong answers, and that protracted deliberation will not solve a problem. We have also seen students who embrace these views change during the course of their academic careers. It is possible that receiver apprehension is a "normal" developmental stage in the educational process. As a result, we are reluctant to prescribe a "treatment" for receiver apprehension in academic settings.

Of course, educators should be aware of the potential effects of receiver apprehension and make appropriate curriculum adjustments when practical. For example, Widgley (1987) believes that training in argumentation may lower apprehension. If true, educators may wish to develop argumentation skills earlier in the academic term. These skills may provide a valuable supplement to

critical thinking exercises, minimize receiver apprehension, and set the stage for more demanding assignments. We expect apprehensive receivers to exhibit lower verbal skills. These individuals may find remedial courses in writing and/or reading helpful in reducing anxiety and improving verbal performance. Until the nature and educational effects of receiver apprehension are determined, treatment programs (e.g., systematic desensitization) should be employed cautiously. Adjusting curriculum and utilizing study skills centers or other university resources may be a more feasible alternative. To assist educators in making this determination, we have included a comprehensive bibliography of empirical research on receiver apprehension.

References

Beatty, M. J. (1981). Receiver apprehension as a function of cognitive backlog. Western Journal of Speech Communication, 45, 277-281.

Beatty, M. J. (1985). The effects of anticipating listening (state) anxiety on the stability of receiver apprehension scores. Central States Speech Journal, 36, 72-76.

Beatty, M. J., Behnke, R. R., & Henderson, L. S. (1980). An empirical validation of the receiver apprehension test as a measure of trait listening anxiety. Western Journal of Speech Communication, 44, 132-136.

Beatty, M. J., & Payne, S. K. (1981). Receiver apprehension and cognitive complexity. Western Journal of Speech Communication, 45, 363-369.

Bloom, B. S., Engelhart, N. D., Furst, E. J., & Krathwohl, D. R. (1956). Taxonomy of educational objectives - The classification of educational goals, Handbook I: Cognitive domain. New York, NY: David McKay Co.

Bocchino, I. L. (1984). An exploratory study of the relationship between listening comprehension, cognitive complexity, receiver apprehension, and mood state. (Doctoral dissertation, University of Florida) Dissertation Abstracts International, 45, 2692-A.

Bock, D. G., & Bock, H. B. (1984). The effects of positional stress and receiver apprehension on leniency errors in speech evaluation: A test of the rating error paradigm. Communication Education, 33, 337-341.

Borzi, M. G. (1985). A rose by any other name is not the same: An examination into the nature of shyness and other related constructs. (Doctoral dissertation, University of Florida), Dissertation Abstracts International, 47, 344-A.

Daniels, T. C., & Whitman, R. F. (1979). The effects of message structure, required recall structure, and receiver apprehension upon recall of message information. University of Wisconsin, Green Bay. (ERIC Document Reproduction Service No. ED 178 979)

Goss, B., Thompson, M., & Olds, S. (1978). Behavioral support for systematic desensitization for communication apprehension. Human Communication Research, 4, 158-163.

Infante, D. A., & Rancer, A. S. (1982). A conceptualization and measurement of argumentativeness. Journal of Personality Assessment, 46, 72-80.

Krathwohl, D. R., Bloom, B. S., & Maria, B. B. (1964). Taxonomy of educational objectives - The classification of educational goals. Handbook II: Affective domain. New York, NY: David McKay Co.

McCroskey, J. C. (1970). Measures of Communication-bound anxiety. Speech Monographs, 37, 269-277.

McDowell, E. E., & McDowell, C. E. (1978). An investigation of source and receiver apprehension at the junior high, senior high and college levels. Central States Speech Journal, 29, 11-19.

McReynolds, P. (1976). Assimilation and Anxiety. In M. Zuckerman and C. D. Spielberger (Eds.), Emotions and anxiety: New concepts, methods, and applications. New York, NY: John Wiley and Sons.

Phillips, G. M. (1978). Reticence: The pathology of the normal speaker. Speech monographs, 35, 39-49.

Preiss, R. W. (1987, February). Cognitive consequences of receiver apprehension: Evidence of reasoning about communication and self-persuasion. Paper presented at the meeting of the Western Speech Communication Association, Salt Lake City.

Preiss, R. W., Wheeless, L. R., & Allen, M. (under review). The cognitive consequences of receiver apprehension: An empirical review. Journal of Social Behavior and Personality.

Roberts, C. V. (1984). A physiological validation of the receiver apprehension test. Communication Research Reports, 1, 126-129.

Roberts, C. V. (1986). A validation of the Watson-Barker Listening Test. Communication Research Report, 3, 115-119.

Scott, M. D., & Wheeless, L. R. (1977). The relationship of three types of communication apprehension to classroom achievement. The Southern Speech Communication Journal, 42, 246-255.

Simpson, J. S. (1972). The classification of educational objectives in the psychomotor domain. The Psychomotor Domain, 3, 43-56.

Spielberger, C. D. (1966). Anxiety and behavior. New York, NY: Academic Press.

Watson, K., & Barker, L. (1984). Watson-Barker Listening Test. New Orleans, LA: Spectra, Inc.

Wheeless, L. R. (1975). An investigation of receiver apprehension and social context dimensions of communication apprehension. The Speech Teacher, 24, 261-268.

Wheeless, L. R., & Scott, M. D. (1976, April). The nature, measurement and potential effects of receiver apprehension. Paper presented at the meeting of the International Communication Association, Portland, OR.

Wigley III, C. J. (1987). Student receiver apprehension as a correlate of trait argumentativeness: A research note. Communication Research Reports, 4, 51-53.

Williams, B. L. (1976). The development of a construct of information anxiety and its relationship to receiver apprehension. Unpublished masters thesis, West Virginia University, Morgantown, WV.

Wolvin, A. D., & Coakley, C. G. (1985). Listening. Dubuque, IW: William C. Brown.

Figure 1

Situations Best Described as

Fear, General Anxiety, or Apprehension

	Situationally Specific	Situationally General
Rationally Known Causes	FEAR I	APPREHENSION II
Rationally Unknown Causes	APPREHENSION III	GENERAL ANXIETY IV

(Wheeless & Scott, 1976, p. 2)

Figure 2

Rational and Irrational Bases

for Receiver Apprehension

Receiver Apprehension Level	Information Processing Efficiency: Satisfactory	Information Processing Efficiency: Unsatisfactory
Low	Rational I	Irrational II
High	Irrational III	Rational IV

(Preiss & Wheeless, 1987)

Figure 3

A Typology of Educational Outcomes of Receiver Apprehension

Educational Domain	MISINTERPRETING	INADEQUATE PROCESSING	FEAR OF ADJUSTING
COGNITIVE DOMAIN a. Knowledge b. Comprehension c. Application d. Analysis e. Synthesis f. Evaluation	Low Cognitive Integration Unable to Synthesize Information	Categorical Thinking Low Cognitive Complexity	Errors in Comprehension Low Lister-Adaptation
AFFECTIVE DOMAIN a. Attending b. Responding c. Valuing d. Organization e. Characterization by a value	Intolerance For Ambiguity In Novel and Complex Situations	Low Need-For-Cognition Low Achievement Motivation	Communication Apprehension Lower Self-Esteem
PSYCHOMOTOR DOMAIN a. Perception b. Set c. Guided Response d. Mechanism e. Complex Response f. Adaptation g. Origination	Selective Perception Routinized Behaviors	Social Withdrawl Impulsivity	Information Avoidance Seeks Belief-Consistent Information

RECEIVER APPREHENSION DIMENSIONS

NOTE: Receiver apprehension dimensions are from Wheeless (1975); Educational domains are from Bloom, Engelhart, Hill, and Krathwohl (1956), Krathwohl, Bloom, and Masia (1964), and Simpson (1972).

Comprehensive Bibliography on Receiver Apprehension

Beatty, M. J. (1981). Receiver apprehension as a function of cognitive backlog. Western Journal of Speech Communication, 45, 277-281.

Beatty, M. J. (1985). The effects of anticipating listening (state) anxiety on the stability of receiver apprehension scores. Central States Speech Journal, 36, 72-76.

Beatty, M. J., Behnke, R. R., & Henderson, L. S. (1980). An empirical validation of the receiver apprehension test as a measure of trait listening anxiety. Western Journal of Speech Communication, 44, 132-136.

Beatty, M. J., & Payne, S. K. (1981). Receiver apprehension and cognitive complexity. Western Journal of Speech Communication, 45, 363-369.

Bocchino, I. L. (1984). An exploratory study of the relationship between listening comprehension, cognitive complexity, receiver apprehension, and mood state. (Doctoral dissertation, University of Florida) Dissertation Abstracts International, 45, 2692-A.

Bock, D. G., & Bock, H. B. (1984). The effects of positional stress and receiver apprehension on leniency errors in speech evaluation: A test of the rating error paradigm. Communication Education, 33, 337-341.

Borzi, M. G. (1985). A rose by any other name is not the same: An examination into the nature of shyness and other related constructs. (Doctoral dissertation, University of Florida) Dissertation Abstracts International, 47, 344-A.

Buhr, T. A., & Pryor, B. (1988). Receivers' apprehension and need for cognition. Psychological Reports, 62, 995-996.

Daly, J. A., Vangelista, A. L., & Daughton, S. M. (1988). The nature and correlates of conversational sensitivity. Human Communication Research, 14, 167-202.

Daniels, T. C., & Whitman, R. F. (1979). The effects of message structure, required recall structure, and receiver apprehension upon recall of message information. University of Wisconsin, Green Bay. (ERIC Document Reproduction Service No. ED 178 979)

McDowell, E. E., & McDowell, C. E. (1978). An investigation of source and receiver apprehension at the junior high, senior high and college levels. Central States Speech Journal, 29, 11-19.

McDowell, E. E., McDowell, C. E., Hyerdahl, J., & Steil, L. K. (1978, November). A multivariate study of demographics, psychological sex-roles and communication apprehensions. Paper presented at the annual meeting of the Speech Communication Association, Minneapolis. (ERIC Document Reproduction Service No. ED 166 735)

McDowell, E. E., McDowell, C. E., Pullan, G., & Lindbergs, K. (1981, May). An investigation of source and receiver apprehension between the United States and Australian students at the high school and college levels. Paper presented at the annual meeting of the International Communication Association, Minneapolis. (ERIC Document Reproduction Service No. ED 206 033)

O'Hair, D. (1986). Patient preferences for physician persuasion strategies. Theoretical Medicine, 7, 147-164.

Paschall, K. A. (1984). The effect of receiver apprehension and source apprehension on listening comprehension. (Doctoral dissertation, University of Florida) Dissertation Abstracts International, 45, 1917-A.

Preiss, R. W. (1988). A narrative and meta-analytic review of receiver apprehension outcomes: The consolidation and extention of the literature. Unpublished Doctoral dissertation, University of Oregon, Eugene.

Preiss, R. W. (1987, February). Cognitive consequences of receiver apprehension: Evidence of reasoning about communication and self-persuasion. Paper presented at the meeting of the Western Speech Communication Association, Salt Lake City.

Preiss, R. W., & Kuper, G. (1988, April). The educational testing correlates of receiver apprehension. Paper presented at the annual meeting of the Northwest Communication Association, Coeur D'Alene, ID.

Preiss, R. W., Rindo, J., Fisfader, T., & Wickersham, T. (1985, May). Receiver apprehension and self-persuasion following counterattitudinal advocacy. Paper presented at the annual meeting of the Northwest Communication Association, Coeur D'Alene, ID. (ERIC Document Reproduction Service No. ED 263 186)

Preiss, R. W., & Wheeless, L. R. (1988, February). Affective responses to processing information: A meta-analysis of receiver apprehension outcomes. Paper presented at the meeting of the Western Speech Communication Association, San Diego.

Preiss, R. W., Wheeless, L. R., & Allen, M. (under review). The cognitive consequences of receiver apprehension: An empirical review. Journal of Social Behavior and Personality.

Roach, D. A., Hauser, M. F., Jackson, J., & Hanna, M. S. (1985, March). The effects of receiver apprehension and noise on listening comprehension. Paper presented at the meeting of the International Listening Association, Orlando, FL.

Roberts, C. V. (1984). A physiological validation of the receiver apprehension test. Communication Research Reports, 1, 126-129.

Roberts, C. V. (1986). A validation of the Watson-Barker Listening Test. Communication Research Report, 3, 115-119.

Scott, M. D., & Wheeless, L. R. (1977a). Communication apprehension, student attitudes, and level of satisfaction. Western Journal of Speech Communication, 41, 188-198.

Scott, M. D., & Wheeless, L. R. (1977b). The relationship of three types of communication apprehension to classroom achievement. The Southern Speech Communication Journal, 42, 246-255.

Sheahan, M. E. (1976). Communication apprehension and electoral participation. Unpublished masters thesis, West Virginia University, Morgantown, WV.

Wheeless, L. R. (1975). An investigation of receiver apprehension and social context dimensions of communication apprehension. The Speech Teacher, 24, 261-268.

Wheeless, L. R., & Scott, M. D. (1976, April). The nature, measurement and potential effects of receiver apprehension. Paper presented at the meeting of the International Communication Association, Portland, OR.

Wigley III, C. J. (1987). Student receiver apprehension as a correlate of trait argumentativeness: A research note. Communication Research Reports, 4, 51-53.

Williams, B. L. (1976). The development of a construct of information anxiety and its relationship to receiver apprehension. Unpublished masters thesis, West Virginia University, Morgantown, WV.